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# United States Patent [19]

Martinez et al.

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[54] **METHOD OF PREPARING POLYALKYLENE OXIDE CARBOXYLIC ACIDS**[75] Inventors: **Anthony J. Martinez**, Hamilton Square; **Richard B. Greenwald**, Somerset, both of N.J.[73] Assignee: **Enzon, Inc.**, Piscataway, N.J.[21] Appl. No.: **440,732**[22] Filed: **May 15, 1995**[51] Int. Cl.<sup>6</sup> ..... **C08G 65/32**[52] U.S. Cl. ..... **525/408; 525/409; 528/300;**  
528/302; 528/361[58] Field of Search ..... **525/408, 409;**  
**528/300, 302, 361**[56] **References Cited**

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[57] **ABSTRACT**

The present invention is directed to methods of preparing high purity polyalkylene oxide carboxylic acids. The methods include reacting a polyalkylene oxide such as polyethylene glycol with a t-butyl haloacetate in the presence of a base followed by treatment with an acid such as trifluoroacetic acid. The resultant polymer carboxylic acids are of sufficient purity so that expensive and time consuming purification steps required for pharmaceutical grade polymers are avoided.

**23 Claims, No Drawings**